

PROCEEDINGS
OF THE
GENERAL MEETINGS FOR SCIENTIFIC BUSINESS
OF THE
ZOOLOGICAL SOCIETY OF LONDON.

EXHIBITIONS AND NOTICES.

October 24, 1911.

Sir JOHN ROSE BRADFORD, K.C.M.G., M.D., F.R.S.,
Vice-President, in the Chair.

THE SECRETARY read the following report on the Additions that had been made to the Society's Menagerie during the months of June, July, August, and September, 1911:—

JUNE.

The registered additions to the Society's Menagerie during the month of June were 602 in number. Of these 164 were acquired by presentation, 70 by purchase, 265 were received on deposit, 32 in exchange, and 71 were born in the Gardens.

The number of departures during the same period, by death and removals, was 328.

Amongst the additions special attention may be directed to:—

A collection of Mammals, Birds, and Reptiles from Africa (chiefly South), presented to H.M. King George by various donors, and deposited in the Gardens by His Majesty on June 2nd, including 2 Eastern White Pelicans (*Pelecanus roseus*), 3 Cape Gannets (*Sula capensis*), 1 Scarce Duck (*Anas sparsa*), 1 Robust Lizard (*Gerrhosaurus validus*), and 1 Black-lined Lizard (*Gerrhosaurus nigro-lineatus*), all new to the Collection.

2 Capped Langurs (*Semnopithecus pileatus*) from the Himalayas, new to the Collection, purchased on June 6th,

1 Hoffmann's Two-toed Sloth (*Chalcepus hoffmanni*), from Brazil, purchased on June 17th.

A collection of rare Indian Birds presented by E. J. Brook, Esq., F.Z.S., on June 6th and 19th, including 2 Grey-headed Ouzels (*Merula castanea*), 2 Pied Bush-Chats (*Pratincola caprata*), 1 Ruby-throat (*Calliope camtschatkensis*), 1 Elegant Bunting (*Emberiza elegans*), 1 Jerdon's Accentor (*Tharrhaleus jerdoni*), 2 Yellow-cheeked Tits (*Machlolophus xanthogenys*), 2 Chestnut-bellied Nuthatches (*Sitta castaneiventris*), 1 Black-headed Wagtail (*Motacilla feldeggii*), 1 Blue-throated Flycatcher (*Cyornis rubeculoides*), 2 Sikkim Siskins (*Chrysomitris tibetana*), 1 Collared Scops Owl (*Scops bakkamena*), and a pair of Blood Pheasants (*Ithagene cruentus*), all new to the Collection.

2 Peale's Parrot-Finches (*Erythrura pealei*), from the Fiji Islands, new to the Collection, deposited on June 14th.

2 Taviuni Parrakeets (*Pyrrhuloxia taviunensis*), from Taviuni, Fiji Islands, new to the Collection, presented by Dr. P. H. Bahr, F.Z.S., on June 6th.

1 Pigmy Crake (*Porzana pusilla*), and 3 Little Stints (*Tringa minuta*), from India, new to the Collection, deposited on June 6th.

2 Hooded Cranes (*Grus monachus*), from Japan, purchased on June 6th.

JULY.

The registered additions to the Society's Menagerie during the month of July were 444 in number. Of these 174 were acquired by presentation, 62 by purchase, 56 were received on deposit, 12 in exchange, and 140 were born in the Gardens.

The number of departures during the same period, by death and removals, was 278.

Amongst the additions special attention may be directed to:—

1 African Cheetah (*Cynalurus jubatus*), from Berbera, Somaliland, purchased on July 22nd.

3 Cape Sea-Lions (*Otaria pusilla*), from South Africa, received from Dr. Louis Péringuey, F.Z.S., for H.M. THE KING'S African Collection, on July 29th.

1 Tibetan Wild Ass or Kiang (*Equus kiang*), ♂, born in the Menagerie on July 13th.

7 White-rumped Lories (*Eos fuscata*), from New Guinea, new to the Collection, 1 purchased and 6 deposited on July 13th.

1 Wolf-Snake (*Coluber vulpinus*), from North America, new to the Collection, received in exchange on July 8th.

A Collection of rare Reptiles and Batrachians from Trinidad, presented by Dr. Lewis Henry Gough on July 11th, including 18 Warty Tree-Frogs (*Hyla venulosa*), 1 Daudin's Tree-Frog (*Hyla rubra*), and 16 Tree-Frogs (*Hyla gougei*), all new to the Collection.

AUGUST.

The registered additions to the Society's Menagerie during the month of August were 229 in number. Of these 85 were acquired by presentation, 21 by purchase, 8 were received on deposit, 62 in exchange, and 53 were born in the Gardens.

The number of departures during the same period, by death and removals, was 244.

Amongst the additions special attention may be directed to:—

1 Red-faced Spider-Monkey (*Ateles paniscus*) and 1 Brown Capuchin (*Cebus fatuellus*), from British Guiana, presented by Messrs. John Reed and W. A. Boyd on August 3rd.

1 Clouded Tiger (*Felis nebulosa*), from British North Borneo, presented by Almeric Paget, Esq., F.Z.S., on August 29th.

1 Ocelot (*Felis pardalis*), from Para, presented by F. J. Weldon Taylor, Esq., on August 16th.

1 Lesser Superb Bird-of-Paradise (*Lophorhina minor*), from S.E. New Guinea, new to the Collection, presented by E. J. Brook, Esq., F.Z.S., on August 12th.

1 Red-crested Touracon (*Thuracus erythrophus*), from Angola, deposited on August 31st.

A Collection of American Birds, including 2 Bendire Thrashers (*Toxostoma bendirei*), 4 Gila Woodpeckers (*Melanerpes uropygialis*), and 4 Douglas' Quails (*Lophortyx douglasi*), all new to the Collection, received in exchange on August 3rd.

2 Broad-tailed Babblers (*Crateropus platycercus*), from Gambia, new to the Collection, presented by Dr. E. Hopkinson, D.S.O., F.Z.S., on August 7th.

1 Striped Gnatode (*Gonatodes vittatus*), from Trinidad, new to the Collection, presented by Dr. L. H. Gough on August 31st.

SEPTEMBER.

The registered additions to the Society's Menagerie during the month of September were 361 in number. Of these 137 were acquired by presentation, 39 by purchase, 39 were received on deposit, 125 in exchange, and 21 were born in the Gardens.

The number of departures during the same period, by death and removals, was 254.

Amongst the additions special attention may be directed to:—

1 Persian Gazelle (*Gazella subgutturosa*), from Arabia, presented by Rear-Admiral Sir E. J. W. Slade, K.C.I.E., M.V.O., R.N., F.Z.S., on September 7th.

2 Tamaulipas Tawny Thrushes (*Merula tamaulipensis*), 2 Derby Tyrants (*Pitangus derbianus*), 1 Giraud Tyrant (*Myiozetetes similis*), 4 Black-breasted Colins (*Colinus pectoralis*), from Mexico; 4 American Barn-Owls (*Asio accipitrinus*), from North America, 1 Hodgson's Pipit (*Anthus rosaceus*), 1 Indian Tree-Pipit (*Anthus maculatus*), 2 Grey-headed Buntings (*Emberiza fucata*), 1 Pine-Bunting (*Emberiza leucocephala*), and 1 Hume's Short-toed Lark (*Calandrella acutirostris*), from India, all new to the Collection, and received in exchange on September 27th.

2 Formosan Pheasants (*Phasianus formosanus*), from Formosa, new to the Collection, presented by W. H. St. Quintin, Esq., F.Z.S., on September 12th.

Mr. JAMES DUNBAR-BRUNTON sent for exhibition two skins and a mounted skull, with horns, of Bushbuck shot by him in North-East Rhodesia.

Mr. W. B. COTTON, of the Indian Civil Service, exhibited a number of heads and horns of various species of Gazelles which he had obtained in the Eastern Sudan, and gave a brief account of their habits and distribution. The specimens included *Gazella isabella*, from the hills behind Suakin and the route from Sinkat to Kassala, and eleven specimens, of which he understood nine to be *Gazella tilonura* and two to be *Gazella rufifrons*, from the Atbara, Settit, and Rahad.

Mr. Cotton mentioned that some sportsmen believed *isabella* to be identical with *dorcas*, and advanced a decided opinion that *tilonura* was merely a local form of *rufifrons*. This opinion was fortified by consideration of the extreme variation of type in the specimens exhibited, of which all but one had come from the same locality, namely the Atbara and Settit.

Mr. D. SETH-SMITH, F.Z.S., Curator of Birds, exhibited a spirit-specimen of a nestling Australian Regent-Bird (*Sericulus melinus*) (text-fig. 1), which had been hatched in the aviary of Mr. Reginald Phillipps, of 26 Cromwell Grove, West Kensington, during the past summer. The male parent of this bird was also bred in the same aviary in 1906, and is the only specimen of this fine Bower-Bird ever bred and reared to maturity in captivity.

Text-fig. 1.



Sericulus melinus, ten days old.

Two young birds were hatched this year (1911), but succumbed to the effect of a thunderstorm in July, when about ten days old. The nestling is chiefly remarkable for the length and thickness of fluffy down on the feather tracts, especially upon the head.

The exhibitor remarked that thanks to Mr. Phillipps' generosity, the parents of this young bird now formed part of the Society's collection, and were amongst the rarest of the exhibits, since at the present time they were probably the only living examples of this fine species in captivity.

Mr. R. I. Pocock, F.R.S., F.L.S., F.Z.S., Superintendent of the Gardens, exhibited two photographs (text-figs. 2 & 3) of a male specimen of Red-fronted Gazelle (*Gazella rufifrons*) which came from Kano in Northern Nigeria, and was presented to the Society in 1908 by Col. Julian Hasler. This specimen apparently represented an undescribed race which he proposed to name and to diagnose as follows:—

GAZELLA RUFIFRONS HASLERI.*

Abstract P. Z. S. No. 100, p. 47 (Oct. 31st).

Back ochre-fawn in colour with a well-defined paler area between the richer tint of the dorsal area and the infero-lateral

Text-fig. 2.



Side view of Red-fronted Gazelle, *Gazella rufifrons hasleri*.

black stripe. This stripe, as in the typical form from Senegambia, with a narrow border of fawn below. Basal inch of the tail the same tint as the back, the rest black. Only a faintly defined dark

* The complete account of this new subspecies appears here, but since the name and a preliminary diagnosis were published in the 'Abstract,' it is distinguished by being underlined.—EDITOR.

mark bordering the white of the back of the thighs. Forehead a darker and richer colour than the neck and cheeks, a few white hairs between the horns. The whole of the upper side of the nose from the preorbital glands to the nostrils snow-white like the chin. The glands themselves and the area round the eye creamy white or very pale fawn. No black on the legs or feet; the glandular tufts below the knees present as in all the examples of *G. rufifrons* that had been exhibited in the Gardens.

Text-fig. 3.

Head of Red-fronted Gazelle, *Gazella rufifrons hasleri*.

This Gazelle differed from all previously described specimens of *G. rufifrons* in the whiteness of the upper side of the nose.

Mr. J. LEWIS BONHOTE, M.A., F.L.S., F.Z.S., exhibited living specimens of Rats (*Mus rattus*) which he had bred in the course of his experiments and which showed the "waltzing" character well known in a variety of the domestic mouse, but which had not hitherto been recorded in rats.

The original stock from which these rats had been bred was caught wild at Giza near Cairo (see P. Z. S. 1910, p. 664), and the experiments were being conducted to study heredity in two varieties found in a wild state, namely, *Mus rattus tectorum* with pure white underparts, and *Mus rattus alexandrinus*, in which the hairs of the underparts were entirely slate-coloured or had slate-coloured bases. The experiments were also being conducted to test the inheritance of a fawn-coloured individual which had appeared as a "sport" in the first generation from pure wild parents (P. Z. S. 1910, p. 638). With regard to the heredity of the two normal varieties the white-bellied form (*M. r. tectorum*) was found to be apparently a simple Mendelian dominant to the dark-bellied form (*M. r. alexandrinus*), the

dark-bellied ones always breeding true and the heterozygous light-bellied ones giving a proportion of pure *alexandrinus*.

This entirely bore out the suggestion put forward by Mr. Bonhote in a former paper (*loc. cit.*) that the main varieties (or sub-groups as he had called them) of *Mus rattus* were true Mendelian mutations. It would thus be understood how forms (which were at present considered as closely allied species) and which differed only in small but constant characters, were able to exist side by side under practically identical conditions without those characters becoming blended or one of them being lost, as would be bound to occur if natural selection were the *only* active force in evolution.

With regard to the heredity of the fawn—the original specimen, a male, which showed the characteristic white underparts of *M. tectorum* (its parents), was mated to an *alexandrinus* ♀, and the resulting F₁ generation, some thirty in number, were all typical white-bellied *tectorum*.

Five pairs of these were mated and gave in the F₂ generation:—

17 Tectorum, 5 Alexandrinus, 7 Fawn T., 1 Fawn A.
the expectation

being 18 „ 6 „ 6 „ 2 „

In addition, there were three individuals that died before it could be determined whether they were *alexandrinus* or *tectorum*, but they were *not* Fawn, as these could be distinguished at birth. The fawn colour, which was probably due to the absence of black, was, therefore, recessive to the normal grey colouring but might occur in either of the normal forms. Thus a rat having an absence of black and presence of the Alexandrine (slaty underparts) character was whitish fawn in colour, since the number of hairs which should contain black was much greater and in the absence of the black factor these hairs were colourless.

It might be noticed that in young Fawn Rats the eye was ruby coloured, as in the case of the Cinnamon Canary, becoming quite dark as maturity was reached.

The “waltzing” rats, of which altogether four had been produced, all appeared in the F₂ generation, but were not all from the same parents. Of the matings for the F₂ generation only one (daughter × father) produced sound young. Apart from the “waltzing” character, three individuals were born blind, and in two of these cases the eyes were undeveloped and the optic nerve absent, and in addition many of the young that were reared were so weakly that they had to be killed, and others died before being weaned.

From certain causes, therefore, which are not very clear, partly due to inbreeding, partly probably to environment, and partly possibly to their breeding at too early an age (6 months), a degenerate and defective generation was produced, and one of the results was to bring about in certain individuals a character (“waltzing”), which in a nearly allied species was shown* to have a Mendelian inheritance.

* Darbishire, ‘Biometrika,’ i. pp. 101, 165, 282 (1902). *ibid.* iii. p. 1 (1903); G. von Guaita, Ber. Naturg. Ges. Freiburg, v., xi. (1898) (1900).